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ABSTRACT

The Global 2000 project was a 3-year project aimed at improving literacy in five Massachusetts manufacturing companies. At four of the five Global 2000 program sites, an external evaluator conducted focus groups and open-ended interviews with members of the projects' employee involvement teams, previous students, and teachers. The evaluator also reviewed the needs assessment and evaluation documents developed and used at each site. The evaluation established that the classes taught by the educational provider were strong. All sites had partnerships among key stakeholders and a plan and goals statement; however, the extent to which all stakeholders contribute to project goals and activities varied significantly from site to site. The greatest weakness of Global 2000 appeared to be in the area of collecting and analyzing data. It was recommended that the data collection instruments of one of the business partners (Fire Controls) be adopted as a model for the other sites. Only at one site were reviews of the program and its employee involvement team mixed. (Appendixes constituting approximately 50% of this report contain the following: draft focus group protocol; teacher protocol; description of the 12-step evaluation process; goal-setting worksheets; and guidelines for curriculum documentation.) (MN)

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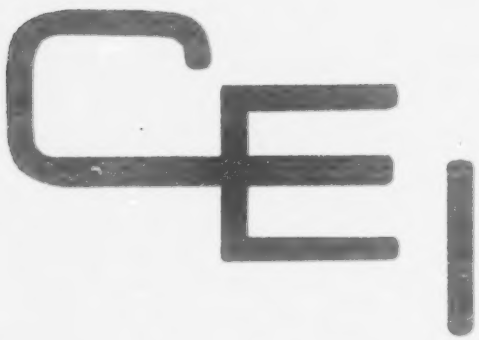

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National Workplace Literacy Program

CONTINUING EDUCATION INSTITUTE
GLOBAL 2000 PROJECT

8. Program Evaluation -- Formative

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PROGRAM EVALUATION

for

CONTINUING EDUCATION INSTITUTE'S GLOBAL 2000 PROGRAM

at

Fire Control Instruments, Power General/Nidec, Analog Devices, and Boston Scientific Corporation

Fall, 1996

by

Debra Tuler

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INTRODUCTION

At the request of Lloyd David and Katherine Archer, I conducted an evaluation of programs at four sites which are part of CEI's Global 2000 Program. I was not brought on as the external evaluator required by the National Workplace Literacy Program to evaluate CEI and its process in providing workplace education, but more as a local evaluator with an expertise in qualitative methods to focus on the local programs themselves. This evaluation is therefore only one piece of the evaluation work CEI is doing. The purpose of this evaluation is to improve the programs offered at these sites. In addition, the information gathered will enable CEI to move ahead with the task of further developing an evaluation component to their program development and goals-setting process. The questions guiding this research were: what was good and what could have been better about the previous year, and how can we improve services? The specific objectives were:

- to determine what teachers, students, and company personnel liked (strengths) and disliked (weaknesses) about the program
- to determine if the programs achieved their goals
- to determine whether additional goals or expectations have emerged

This report is divided into four sections. The first section describes the process used to gather information about 1) participants' perceptions of the ways in which the program has been successful so far and the ways in which services and the program can be improved, and 2) achievement of goals and extent of progress. The second section provides recommendations regarding documentation and evaluation tools developed and used by CEI. The third section provides site-specific analyses. And finally, the fourth section provides an analysis of CEI's Global 2000 project from the perspective of teachers in both the ESL and ADP programs, concerned primarily with communication within the program, curriculum, and assessment issues.

SECTION 1: PROCESS and METHODOLOGY

I conducted focus groups and interviews with members of employee involvement teams, with previous students, and with teachers for four sites in the Global 2000 project[1]. I prefer focus groups and interviews because in order to get deep information it is necessary to ask open-ended questions which people often do not answer on surveys. Also, in focus groups, a comment made by one person often triggers a comment by another person. Further, it provides me with the opportunity, not found in surveys, to ask clarification questions and confirm my understanding. The choice of focus groups or interviews fell to the contact person at each site; while I mainly used focus groups, in a couple of places they felt that interviews would be easier in terms of taking people off the production floor. At one site, Power General, they could not arrange a meeting time, so they asked me to send my interview questions; EIT members filled them out and returned them. At this site I also spoke with students one-on-one. I asked similar questions of both students and EIT members. Refer to the appendix for the interview protocols. After conducting all the interviews and focus groups, I reviewed the data to identify common themes.

In addition to speaking with students and EIT members, I interviewed both ESL and ADP instructors. I also spoke with Lloyd and Katherine early in the process, and with Kathy midway through.

Finally, I reviewed the needs assessment and evaluation documents developed and used at each site, and the information gathered through these documents. I reviewed these not to determine the quantitative results, which CEI is able to do through NWLIS and its own charts, but in order to see comments and to note the format or structure of these documents.

1. The sites included in the evaluation are Analog Devices, Fire Control, Power General, and Boston Scientific; AEC did not participate in the evaluation.

DIFFICULTY	RECOMMENDATION
For some sites, there were student evaluations but no teacher evaluations, or vice versa (e.g. FCI). Therefore, it is not possible to compare responses; this kind of comparison (triangulation) is used in qualitative research as a way to establish validity.	Ensure that teachers and students fill out similar forms. To make comparisons among different respondent groups simple, keep items in the same order on different forms. I.e. the list of items on a needs survey should be in the same order as the list on the teacher's evaluation, the same as on the student's evaluation. If teachers respond to items that students do not (or vice versa), put those at the end of the list. Data collection forms should match the objectives to be evaluated and each other. Each item on an evaluation form should match an indicator or progress or achievement for the objectives. Make sure each item only asks one thing (avoid and/or statements because then the respondent must answer two questions in one - see supervisor questionnaire at Power General)
Many forms were not dated. Therefore I could not tell which cycle they referred to.	Date all forms. Include site name (fully written), cycle, class level, teacher's name. Each form should have a clear purpose. Give each form a name to distinguish it from others. Not all forms should be called evaluation forms; for example, rather than "ongoing evaluation", try "class log" or "assessment scores". It may help to distinguish between assessment and evaluation. According to the Department of Education, assessment refers to the process of collecting and analyzing information on student learning while evaluation refers to the process of collecting and analyzing information on a variety of aspects of a program (including assessment of learning, transfer of learning, organizational change, program processes and outcomes) to determine its value.

Forms did not match class lists (or there were no class lists). Therefore I do not know which cycles and classes they are for and if there are forms for all classes held.	
Goals statements indicate company goals but do not indicate the role the Global 2000 project plays in addressing those goals. I.e., while a company goal may be to "increase operator's abilities to read and understand operating procedures" (FCI), if no operators are enrolled in classes, the Global 2000 project should not be evaluated on whether or not operators improve their ability to read and understand procedures. Or, if a company goal is to increase productivity, there is no statement on the relationship between the basic skills program and this goal (how will improved basic skills help the company's bottom line?).	Collect data on clearly defined and articulated objectives. It may not be possible to collect data on all goals. If a company's goal is to increase productivity, the goals statement should indicate in what ways the Global 2000 project fits with that goal, and it should be evaluated on how it performs in those ways, not on improved productivity (there are other factors that contribute to productivity). The objective being evaluated should have a minimum of cause-effect relationships. I.e., we believe that when workers improve their reading skills, they can read and understand work orders/procedures. When they understand them, they make fewer errors. When workers make fewer errors, there is less waste. When there is less waste, productivity increases. (Note that this assumes that the workers in question are the ones who read the orders. It also assumes that there are no other factors impinging on whether or not they actually read something they know how to read.) Some companies keep statistics on errors and waste. Global 2000 keeps records on reading comprehension skills. As reading skills go up, do errors and waste of class participants go down? What else might contribute to errors and waste? And how is the company addressing those? The question therefore is not "What are the company's goals?", but "What are the goals for this project?" Comparative data is crucial to determining the impact of the program. FCI has collected this kind of data - perhaps they could present their methods to other sites.

Rating scales varied from form to form (e.g. evaluations at ADI had a different scale from the needs survey, so scores could not be compared).	Use the same rating scale on all forms. Rating scales should be even in number. It is best on each form to ask the respondent to rate current level of ability rather than to rate progress; by comparing pre and post survey scores, the evaluator can then determine degree of progress. If numbers go down, don't immediately assume failure; rather, look for possible reasons. For example, as students improve their skills, they become more aware of how little they know and of how many mistakes they make. They may therefore rate their skill at a lower level. It's not that their skill decreased but that their awareness increased. When you find apparent anomalies, talk to people to find out why. (another area of anomaly is students rating progress less than teachers do) Items to be rated should be written as statements (grammar and punctuation) Make sure that items to be rated can be rated with that scale rather than requiring a yes/no response.

SECTION 3: SITE-SPECIFIC EVALUATIONS

Analog Devices, Inc.

Strengths (Likes) and Weaknesses (Dislikes)

Based on the information obtained in student and team focus groups, the program at this site is well-organized. The team is strong and both team members and students were positive about the results so far. The existence of the team is seen as a strength and a sign of success. Also, students do homework, which indicates commitment; students also act as examples to others. Additional "likes" include the time of classes and the opportunity to use what they learn.

The primary concern expressed by the team was that they lacked the tools to assess people at the beginning, so they will never know the full benefit of the program. In this, managers expressed disappointment with CEI; they expected CEI to be better prepared to do initial assessments. Also, they find that since the learning curve is slow, it is difficult to assess progress. An additional concern is that the ESL teachers are not as strong as the ADP teachers. Apparently, students felt that the teacher was too mild and relaxed; they prefer someone who is more strict. They had high expectations which were not met; they did not feel challenged enough. On the other hand, because it was a multi-level class, other students were uncomfortable because it was too difficult. The team recommended that more/better testing be done initially to place people in the right class and that no one be allowed in without having been tested first (apparently some people got in without being tested).

Goal Achievement

The primary goals they identified were to get everyone in the company to read and understand job procedures and notes, and to do it right without relying on translators. To know whether they are achieving these goals, group leaders pay attention to workers' use of reading, writing, and speaking. What group leaders and team members have noticed is that "a wall came down"; that is, people from different language backgrounds speak English with each other, as do people from the same language background (rather than reverting to their native language). They sense an increased comfort level; it has become the atmosphere in the company to speak English. In addition, workers now read procedures and ask for help. They know people are reading because of the kinds of questions they ask and because they point out errors. As one student said, "I know my

progress because I know my own problems. So I can see change. Now I learned a little so I have a million questions; I notice things and want to know." These comments demonstrate that the goal of improved communication skills (from ADI's goal document) is being achieved.

From a statistical analysis of the student and teacher evaluations, I was able to determine that teachers tend to rate greater progress than the students. I was not able to determine why that is.

There was no information available on other goals indicated on the goal document, including improved productivity/employee empowerment, improved team problem solving, and improved process control. We need more information on the link between improved communication and these larger goals. Also, I am not sure what the connection is between productivity and empowerment (they are linked in one goal). The goal document should clearly spell out how the measures work (e.g., should the number of ECNs generated go up or down?)

Boston Scientific

Strengths (Likes) and Weaknesses (Dislikes)

The team is a strength of this program as well. The company finds that the model of targeting one or two departments at a time is a strength because participants get support from supervisors and co-workers while they are in class; the whole department buys into having them participate. The only dislike was that expressed by students: 15 weeks are not enough. The EIT needs to explore ways to continue supporting student learning and practice after classes are over. One possibility is mentoring/tutoring, as is done at Fire Controls. Another possibility is to set up a drop-in learning center or library where students can go on their own time. Students liked the fast pace of the classes ("no time wasted") and the talking. There were mixed feelings about the textbooks.

Goal Achievement

The goals of the program, as articulated in the team focus group, are to improve the literacy skills of employees and to help them be more participative. It is understood (or believed) that these will help the company. It is also understood that with only 15 weeks of instruction, students will not gain fluency; the team views the program as a building block. Specifically, they want increased confidence, for students to try to use English more, even after the class is over. (I did not have a goals sheet

document for Boston Scientific). In terms of improved literacy skills, according to team members, there is noticeable progress. Workers are able to point out errors in written procedures, which demonstrates that they are able to, and do, read. They also make suggestions for improvement. People involved in the program have been promoted, taken on more responsibility, and received company recognition awards. Those who have participated in the program will now leave notes for each other, which they did not do before. Note however, that the team and the company do not keep any records on these achievements. From needs survey and evaluation documents (which were not dated, so I am not sure when they refer to and which go with which), it appears that participants' ability to read and follow directions and writing of notes increased only slightly; this is not surprising given that literacy skills take a long time to develop (according to the DOE, to move from SPL level 0 to level 1 takes over 100 hours of instruction), but it does seem contrary to focus group information. The greatest increases (in the documentation) were in comfort level and in understanding verbal instructions. The increased participation in team meetings in the company is an indicator of progress for the program because students learn to speak up, do presentations, and to function as a team in class.

From the students' point view, the fact that classes run for a short period of time means that they must be very focused and that no time can be wasted. They found that in this short time, they do become more confident and they are able to better comprehend speech. However, they do not feel that they make great progress in terms of grammar, vocabulary, and writing.

Additional Goals

The team would like to mold the program more to the company. For example, they mentioned using Standard Operating Procedures as a tool for teaching English because it is important for operators to read them. But, they also mentioned that these procedures are always changing, which means that it is not necessary to teach the procedures themselves in class. In fact, if the procedures are always changing, then what is important is to develop transferable reading skills (regardless of what document/text is being read). The team also mentioned continued focus on "team", and on managing class in such a way as to promote the team concept (what it is, how it operates, the roles people play).

Power General/Nidec

Strengths (Likes) and Weaknesses (Dislikes)

At Power General there were mixed reviews about the program and about the Employee Involvement Team. Some found the team effective in its responsibilities while others felt it was not so effective. Those who considered it a strength did so because it includes people from all levels and functional areas within the company, meaning that all needs are considered and represented in goal-setting and development. Others articulated numerous challenges or weaknesses, including a lack of regularly scheduled meetings, a great difference of opinions making it hard to come to decisions, and the lack of English fluency among all members. In addition, the team is challenged by the responsibility of measuring changes in work productivity. In general, there was agreement that the team was effective in encouraging workers to sign up for class.

One person stated that it seemed like all decisions were made in advance by others so there was no real point in her participation. For example, the process of selecting participants seemed particular and pre-determined (even though recruitment was open); she did not feel that she had any input. Also, she was not clear on what was expected of the team in terms of setting goals and creating the project. Although only one person openly stated such confusion and dissatisfaction, it is possible that others feel the same way but were not open in stating it. One student and EIT member also stated that the team was good because everyone gave ideas, but when pressed also admitted that she never spoke up because "my idea is low". If a few members give the impression of having all the answers and decisions, then others may only agree or be silent. In addition, team members articulated numerous, different responsibilities; this shows that they are either unclear on what their responsibilities are (and therefore have different perceptions) or they may be overwhelmed by having too many. (Note: I did not meet with the team as a focus group because they could not all meet with me at the same time; instead, they answered open ended questions on a form).

Another strength of the program was the teachers.

Goal Achievement

Despite the mixed reviews on the functioning of the team and on evidence of changes in productivity, respondents were positive about the programs affect on participants' language skills. One supervisor wrote that for her,

evidence of progress was that a few people on her line now sometimes disagree with her; they have the "guts" to do so; in addition, many team members and students said that they ask more questions than before. Also, after the classes they were able to read the bill of materials and point out errors. Others also pointed to increased communication of problems or errors, increased adaptability, and improved job performance. Other evidence of progress has been that participants no longer use interpreters, they communicate with each other, write notes to the second shift, and check documents before starting a new job. Also, there have been changes in terms of confidence to communicate. They felt that they had many examples of individual/anecdotal successes and perceptions of improvement, but "no clear way to measure accurately", no concrete effects to the business' bottom line; in other words, they believe that data must be quantifiable to have value.

Additional Goals

To continue on as they have been, but to get clearer evidence of goal attainment. One person felt that the team needed more direction and research from CEI regarding recording results of the program.

Fire Control, Inc.

Strengths (Likes) and Weaknesses (Dislikes)

The EIT is a great strength of this program because those on the team (except for one) all work directly with program participants. They are very organized, which demonstrates their commitment to participating in the process. The team implemented two components which are also strengths of the program: tutoring/mentoring, and pre/post surveys.

The tutoring piece provides students with someone to go to if they have questions or want to practice something. The problem with the tutoring program is that students are uncomfortable going to see their tutor because they feel like they are bothering them; also, sometimes, by the time they manage to track the tutor down, their break is over. The team would also like to see managers and engineers become tutors (rather than just team members). The concept of the tutor is good because it provides a way for students to practice outside of class; to ensure that students are comfortable with it, it may need to be formalized more in terms of time.

Team members across the board were very positive about the results of the program. Students also were positive. They would only have preferred greater strictness on the part of the teacher.

Goals Achievement

The team identified several goals for the program. These included:
raising the English comprehension and speaking levels of workers
increasing workers' understanding of what they are building
improving efficiency
improving comprehension of visual aids and documentation
decreasing workers' fears of asking
moving workers forward so they become a resource of the company (not just people who use resources)
improving the quality of their products

All members in the focus group agreed that they had achieved more than they had expected because they had understood it would be a long-term process; now they are more aware of what a program like this can accomplish. Students also felt that they had improved their skills, and have an opportunity to use those skills, but also that they forget a lot when no longer in classes. The team has achieved clarity on the help their workers need. They find that those workers who have participated in classes speak now more than before. They ask more questions and the questions are of a different kind, demonstrating critical thinking. They got over a certain level of shyness (a barrier was broken); participants feel more like a part of the organization, and they have become more comfortable with the program itself. Also, the team has documented improvements (through statistical analysis) in quality of work as a result of program participation. This latter achievement is a key one because it is lacking in most programs. It demonstrates forethought in terms of what and how to collect data; other programs would benefit from hearing what FCI did from the beginning (when they did not yet know that they would have a lab-type setting). I highly recommend that you document and disseminate this information in a journal article.

Additional Goals

The EIT expressed an interest in meeting with other companies who have programs, to share ideas. They also expressed an interest in further tailoring the program to their own terms and processes after funding is over (and not worry about the difference between education and training). An additional goal is to improve the tutoring component.

SECTION 4: TEACHERS' PERSPECTIVES

ADP Program

Overall, ADP teachers were positive about the program. In particular, they feel that Kathy Hassey is doing a very good job; specific comments were that she provided structure to staff meetings, that she is working hard on curriculum and assessment issues, and that she goes the extra mile. Areas of concern primarily revolve around perceived lack of clarity in communication.

Strengths of the program include

- demands made of students are rigorous
- students are motivated and eager
- the mission of having students get their diploma; the vision of helping educationally disadvantaged people
- staff meetings which were helpful in sharpening the focus on key issues, especially that of what students need to do in order to graduate legitimately/extent of contact between/among teachers was sufficient
- organization of program in three strands
- extent of class time
- individualized attention students receive because of small class sizes (note that some teachers felt classes were too big: agreement was that 10 was an optimal number)
- supportive atmosphere (in supporting students)
- commitment of teachers
- academic (rather than experiential) approach of program (noted as a strength by one instructor)

Weaknesses/areas for improvement

- responsibilities of instructors are vague: counseling seems to be part of the job description, but it is not clearly defined (seems to include tutoring, phone calls, meetings). A lot is asked of teachers; as a result, committed teachers put in extra time for which they are not paid.
- curriculum is vague (but note that this is partly due to the high turnover recently in the Coordinator position, and work is now being done in this area, which staff recognized): there needs to be a concerted effort to draw up and establish an integrated curriculum, to develop or find materials suited to this population (especially reading materials); it is a problem that there are limited materials which are appropriate to this population

- methods/approach to use in assessing students has been vague; skills necessary for receiving the diploma, considering that they have such little time and many students cannot write at all (system and criteria were changed in the middle of a year, which was disconcerting to students) (note that some teachers indicated that clarity was needed on what students need to do in order to graduate legitimately, while others felt that clarity had been reached) - it may help to develop benchmarks
- suddenness of communications has been problematic (see above example)
- a written mission statement or statement of purpose would be appreciated
- communication needs to be improved (and written): mission, grading system, expectations for graduation, curriculum
- visitors to classes were found to be an interruption, particularly when there was little or no warning; it was felt that visitors should be observers but not participants because the time is so limited and the amount they need to cover is so great
- goals and objectives need to be more clearly defined; there was felt to be a lack of consistency

Teachers' understandings of program goals

- to bring students to the point where they can graduate from high school/get a high school diploma
- (given this goal, teachers need a clear understanding of what is expected of students for them to be able to do this)
- to enhance people's personal development and the company's pay-off in productivity (hence a customized curriculum; the greatest connection between getting the diploma and personal development was improved verbal and written communication)
- to make employees more confident and self-assured so they function better in the workplace and in society

Given the focus on a high school diploma, the teachers did not see any importance to being in a workplace environment; the environment and the funding source had no affect on their teaching.

Evidence of goal attainment

- progress in verbal communication and confidence to present to others (confidence means willingness to speak, to not be quiet or timid, to stand up in front of a group and talk; this was evident in the presentations at Boston Scientific)

- students get their diplomas (but no knowledge of long-term effects)
- use of exams, reports, essays, and presentations: measured against the quality of their work in these areas at the start of the class

ESL Program

Strengths of the program

- flexibility of program to respond to needs of a particular class
- staff meetings; extent of contact with other teachers (teachers meetings were run well in that Katherine helped them listen to each other and reflect on their work); good exchange and sharing of ideas
- fact that Katherine took care of issues with management so that teachers were free to just teach (note that there was disagreement on whether this was a strength or a weakness)
- tutoring program at Fire Controls
- Teams: a strength because was very active (but also a weakness - see below)

Weaknesses/areas for improvement

- a curriculum guide is needed
- a written list of objectives (both this and the curriculum guide would help give the teacher direction)
- the fact that the instructor is not involved in the team was seen by one teacher as a weakness because she felt that there was a communication breakdown in the dispersal of information (people hear differently and report selectively, so when one does not get the information first hand, one may be missing something of importance); also, since this teacher has a lot of experience with a team-based approach, she felt that she could have provided valuable input
- classroom space (such as a conference room rather than the cafeteria)
- materials: an on-site "library" for students; materials which apply skills in more ways (moving students to apply skills beyond the classroom)
- most teachers on the ESL staff come from backgrounds in reading and learning disabilities (two very important areas) and with children. They do more reading/writing/phonics activities with ESL books and less work on speaking/listening/conversation. For some teachers, the transition from children to adults and from school environment to workplace environment has been a difficult one (but Katherine has done a good job of orienting people to teaching in this environment)
- it may help to develop benchmarks or some other "standard" way to indicate student progress so it is clear on forms what the marks mean

Teachers' understandings of program goals

- to get each student functioning at work on a higher level
- to get them ready for further training
- to make them greater assets to the company
- to communicate more/better with each other and with management (ask/answer questions, read procedures)
- to improve critical thinking skills

Evidence of goal attainment

- students speaking more in class, asking more questions (or different kinds/order of questions)
- students articulating their needs more
- students participating in/contributing to discussions
- students organizing ideas in writing
- students mastering use of grammatical structures
- students improving reading comprehension (reading more difficult texts)
- increased confidence: less hesitancy in speaking, more eye contact, greater willingness to talk

For the ESL teachers, the funding source and the workplace environment have affected their teaching. They find the focus to be more narrow, with company needs having priority; however, they also articulated their own, broader goals. One teacher pointed out that the focus is on English as a vehicle for communication rather than as isolated, abstract, and academic. Examples of how classwork relates to the workplace are: pronunciation activities to improve students' comprehension of others and others' comprehension of the students; reading skills such as previewing, scanning, finding main ideas and verifying details (relates to reading work orders); asking and answering short questions (to address supervisors' complaints that students do not ask when they do not understand and do not respond to direct questions); job titles and job duties. On the other hand, another teacher focused her comments on "academic" skills, such as reading grade levels. Increase in grade level was her primary indicator of progress and success.

CONCLUSION

The purpose of this report is to help CEI improve its workplace education services to organizations. This involved determining what went well in the last two years of Global 2000 and what could be improved. The data collected demonstrate that the classes which CEI provides are strong. There is a partnership at each site among key stakeholders, although there is variation from site to site regarding the extent to which all stakeholders contribute to goals and activities. All sites have a plan and goals statement; at this point, these plans should be reviewed. I recommend revising if necessary to make the goal and indicators clearer and easily measurable. In addition, as indicated in Section 3, data collection instruments may need to be revised. However, as also indicated in Section 3, there is evidence of results at all sites, both with regard to impact on students and with regard to impact on the workplace. The greatest weakness of Global 2000 is in collecting and analyzing data, but if revisions are made as recommended throughout this report, this may be improved. Since one site has done a great job of collecting data (Fire Controls), they may be used as a model for other sites.

The task of determining goal achievement depends on having clearly articulated and measurable goals. It also means developing procedures, such as regular focus groups, for collecting anecdotal information. Refer to the attachments for sample forms and procedures which may help when revisiting this process with the Employee Involvement Teams. A highly useful reference is Lynch (1996) Language Program Evaluation: theory and practice. Melbourne: Cambridge University Press. Also refer to the next issue of Adventures in Assessment, put out by World Education.

EIT FOCUS GROUP - DRAFT PROTOCOL

Introduction

CEI has asked me to come in and speak with you to help them determine in what ways the workplace education program have been successful so far, and in what ways their services and the program can be improved for next year. Besides meeting with you (the EIT), I will be meeting with some former participants and with some teachers. Everything you say will be kept confidential. I will only be reporting aggregate information/results. I appreciate your openness in speaking with me.

(at end: Thank you for your time)

General Information about the Team

- How often do you meet? For how long each time?
- Who facilitates the meetings? Is there a standard format? (what is a typical meeting like?)
- What are the responsibilities of the team? What does the team do? (get specifics of what happens in a meetings and outside) Why?
- Do you think a team is an effective governing body for the workplace education program? (explain how, why)
- What challenges do you face in doing these tasks? (explain)
- What would help make the team more effective in carrying out its responsibilities?
- Are there other tasks you think the team could/should be involved in, but hasn't? What and why?
  Is the EIT what you expected? How?
- How would you describe the relationship between CEI and the company?

Information on the Program

- What are the program's philosophy and goals, to the extent articulated? How do these relate to the company's philosophy and goals?
- What did you like/dislike about the last two years?
- Did the program meet your expectations? How, how not?
- Now that you've experienced the program for two years, have your expectations changed? How?
- What do you see as the strengths of the program?
- Are there any ways you think the program could be improved?
- What does 'success' mean to you? What counts as 'evidence' of success?
- What changes do you look for to see whether students are 'succeeding' or making progress in their English language skills? What kind of data do you collect?
- How does the program connect with other training and development/ organizational change initiatives?
- By the end of year 3, what would you like to see happen/change?
- The company has the following goals for Global 2000 (remind them of goals and measures)
  - What is the relationship between the ESL program and these goals?
  - How does the ESL program help the company achieve these goals? (specific examples) How do you know?
- Are there opportunities for workers to apply new skills gained through the program at work? (examples)
- What evidence is there, if any, of results of worker participation in the education program on:

  The workers themselves (e.g. changes in job status, performance, understanding of co. information, etc.)?

  The workplace (e.g. quality of goods, etc.)?

PARTICIPANT FOCUS GROUP - PROTOCOL

Information on the Program

- What classes did you take? When?
- What did you like/dislike about the last two years?
- What would you like to be different next year?
- What would you like to be the same?
- What are/were your goals?
- Did the program meet your expectations? How, how not?
- What do you see as the strengths of the program?
- Are there any ways you think the program could be improved?
- How do you know if you are learning or making progress?
- Do you receive other training?
- Are there opportunities for you to apply new skills gained through the program at work? (examples of when you are given or not given opportunities)
- Does anyone monitor if and to what extent you apply new skills you learn in class at work? If yes, who and how?

- Do you see any results/changes of participation in the program:
  On how you and/or others do your work or understand your role in the company?
  On yourself personally,in your family, and/or community?
- Do you think there are other workers here who could benefit from classes but don't come? Why do you think they don't come (barriers to participation)? Is there a way we could help encourage them?
- These are the company's goals for the program (tell them).
  Did you know these were their goals?
  Does the program/classes help achieve these goals? How, how not?

TEACHER PROTOCOL

1. What are your responsibilities with CEI?
2. How long have you been at this site? What do you teach?
3. Are there other teachers at your site?
4. How much contact do you have with other teachers? Do you find this to be sufficient?
5. Is the funding source (NWLP) or the fact that this is a workplace program important to you and to what/how you teach (i.e., does it make a difference)? In what ways?
6. As you understand it, what are the program's philosophy and goals?
7. What do you see as the strengths of the program?
8. Are there ways in which you think it could be improved? explain
9. What counts as evidence of progress to you? What changes do you look for to see whether students are making progress? (how do you note progress?)

APPENDIX B: DESCRIPTION OF THE EVALUATION PROCESS

I. Background

Over the course of eighteen months team members received a variety of instruction, support and technical assistance from the evaluation facilitators both on site and in state-wide meetings. There were four evaluation facilitators who worked with the local teams. The facilitators were: Bob Bozarjian, who was the Coordinator of the MWEI, NWLP Wave IV Program; Johan Uvin, who was the Assistant Coordinator; Kathe Kirkman, who was the Evaluation Specialist in the Adult and Community Learning Services Cluster; and Laura Sperazi, Director of Evaluation Research who was also the external evaluator. The facilitators took the teams through a twelve stage process which is summarized below. For a more complete description of the team evaluation process, refer to "Team Evaluation: A Guide for Workplace Education Programs" which is available through the ERIC Clearinghouse and from Paul Jurmo, Literacy Partnerships. (See "References and Resources" for more information.)

II. Twelve Steps of Team Evaluation

Step 1: **The team is convened and introduced to the principles of team evaluation.** The team meets for the first time, reviews relevant materials on team evaluation, and considers the challenges and benefits of working together on an evaluation project.

Step 2: **The team clarifies its expectations regarding evaluation.** The team builds the foundation for its evaluation activities by answering the basic evaluation question: Who wants what information for what purpose? Differences in stakeholder

expectations are clarified. Differences between summative and formative evaluation questions are also clarified.

Step 3: **The team identifies the goals it wants to evaluate.** Summative or outcome evaluation: the team identifies program goals with special attention to if/how goals differ across stakeholder groups, and chooses the goals it wants to evaluate.

Step 4: **The team identifies appropriate indicators for its goals.** The team answers the question "How will we know if we have met our goals?" by specifying the indicators (or "signs of success") for its goals. These indicators become the building blocks of the surveys, interviews, focus groups, and other information gathering procedures which the team will use to gather summative information.

Step 5: **The team clarifies which program components need to be in place in order to achieve the desired goals, and evaluates whether the program is operating according to its own standards of quality.** Formative or process evaluation: the team evaluates how the program is conducted. It establishes "quality standards" for each program component, determines if current operations meet the standards needed to achieve its desired goals, and -- if not -- develops an action plan to bring those operations into "quality range." The team thus develops an action plan to improve program operations so that the likelihood of achieving desired goals is enhanced. Teams will revisit goals, indicators, needed program components, and action plans as needed.

Step 6: **The team formulates an evaluation plan.** The team considers key issues in evaluation design and then thinks through when, how, and from whom it will collect the summative (outcome) information it wants -- as well as any additional formative (process) information it wants which the previous exercise did not capture.

Step 7: **The team designs and pilots instruments and procedures for collecting the desired information.** The team chooses and/or designs data-gathering procedures. The team pilots these procedures as a basic check for reliability and validity.

Step 8: **The team implements its evaluation plan.** After designing and piloting its data gathering procedures, the team carries out its evaluation plan. This includes inviting potential respondents to participate in the evaluation, creating the appropriate conditions for collecting information, scheduling the data collection, etc.

Step 9: **The team gathers and organizes its data.** Designated team members gather and organize the data.

Step 10: **The team analyzes its data**. Team members analyze the data.

Step 11: **Team members prepare a strategy for reporting their findings.** Team members consider the range of options for reporting significant findings and target their evaluation audiences.

Step 12: **Team members report their findings to targeted audiences and incorporate their findings and audience feedback into program planning and future evaluation strategies.** The team reports its findings and uses what it learns in two ways: to inform strategic planning decisions and to clarify the next evaluation questions which it will answer.

GOALS
OF GLOBAL 2000

	Pow. Gen.	Analog Dev.	AEC	Fire Control	Boston Sci.
Improve productivity of workplace	data needed?	data needed?		data needed?	data needed?
Empower participants: 1)to advance in jobs 2)to improve job performance 3)to retain jobs	data needed?	data needed?		data needed?	data nneded?
Demonstrate a model for successful workplace literacy programs in the manufactur-ing sector, through formation of integrated partnership	partnership exists	partnership exists		partnership exists	partnership exists

MEASURABLE OBJECTIVES AND INDICATORS OF GLOBAL 2000

OBJECTIVES	INDICATORS	SITE
Form an EIT		
Conduct a lit/skills audit of literacy, lang., math reqs of 22 types of jobs		
Conduct needs analysis with sup. staff and employees to establish contextualized workplace specific curr. needs to determine means, measures for evaluating needs		
Conduct orientations		
recruit min. 647 participants over 3 yrs		
Conduct pre-math, rdg assessments		
Conduct ind. interviews w/647		
Provide EWL instruction for 216		
Provide math instruction for 196		
Provide rdg comp and writing for 196		
achieve participant completion rate of 80% per 10-wk cycle		

Achieve noticable improvement b/t pre and post writing samples		
Achieve 50% increase in math scores for 80% of participants		
Achieve 1 grade level increase for 80% of participants on rdg test		
Conduct quantitative and qualitative evals of project - done by EIT		
Provide ADP to 54		
Provide computer aided instruction and tutoring to supplement other instruction		
record and monitor improvements in 1)productivity 2)participant job performance 3)job retention and advancement		

COMPLETE LIST OF PROGRAM GOALS

1.

2.

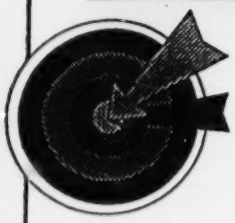
3.

4.

5.

PRIORITIZING PROGRAM GOALS FOR EVALUATION

PROGRAM GOALS	A. Is this area already being evaluated? *0 = Yes* *1 = Somewhat, not what it could be* *2 = No*	B. Would information on the effectiveness of this goal be helpful for program or policy decisions? *0 = No* *1 = Possibly* *2 = Yes*	C. Is there any doubt or question that this goal is operating successfully? *0 = No Doubt* *1 = Some Doubt or Question* *2 = Strong Doubt or Question*	D. Is there an external request for evaluation information on this goal? *0 = No* *1 = Could be* *2 = Yes*	RATING TOTAL
1.					
2.					
3.					
4.					
5.					
6.					



Identify Indicators

1. How will we know whether this goal has been achieved or not?
2. What will we take as evidence?
3. What behaviors, attitudes, or events will show it's achievement?

GOAL: (Write in)
INDICATORS
1.
2.
3.
4.
5.
6.

Draft Guidelines for Curriculum Documents 8/10/95

Curriculum Working Group
Massachusetts Workplace Education Consortium

For each curriculum document, please include:

- Statement of your teaching philosophy/approach

- Description of your teaching context (workplace, class level, size, ESL or ABE, etc.)

- Description of your curriculum development process:
  - Explain how you have elicited and incorporated student input and needs
  - Explain how you have elicited and incorporated input and needs of other stakeholders
  - Explain how you elicited and incorporated workplace topics and materials
  - Explain methods you used to assess student progress, effectiveness of teaching, etc.

- Description of the challenges you learned from, what you would do differently

- Sample "chunk" of your teaching activities. Describe/include the following:
  - How the topic was chosen
  - Teaching/class goals
  - List of skills addressed
  - Time frame
  - Processes and activities used
  - Materials used (please attach)
  - Assessment tools used, if any (please attach)
  - Examples of homework, if any (please attach)
  - Reflections on the lesson

- List of topics covered in your cycle

- Resource list of published materials (texts, photos, etc.) you found helpful/have used

The Curriculum Working Group is made up of teacher representatives from each of the seven Consortium partnerships around the state.